FIELD CHANGE REQUEST (FCR) FORM

Project Name: _Arkema Project Area – PDI Phase 1_____ Project No.: _CF167_____
Client: _LSS/Retia USA_____ Request No.:_FCR-02____

To: _Madi Novak, EPA_____ Date: _July 15, 2021_____

Field Change Request Title: _Riverbank Soil Sample Collection Methods

Description:

The Arkema Project Area Pre-Design Investigation (PDI) work plan specifies that the riverbank borings will be advanced using a hand auger. However, reconnaissance of the proposed riverbank boring location between June 22 and July 9 visually revealed soil and fill material types that will not be possible to sample using a hand auger at many of the locations. The riverbank area adjacent to the Arkema project area contains fill materials (rock, brick, concrete, etc.) and loose sand (see photos below of RH-32 [upper left], RH-20 [upper right], and RH-40 [bottom]). Alternate sampling methods are needed to collect the riverbank soil samples.

Recommended Change:

The field crew will assess the soil types and select the most appropriate method for collecting the riverbank soil samples at each boring location. The sampling methods that may be used include the following:

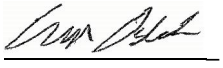
1. Hand auger (as described in the PDI work plan)

2. Impact corer system. The impact corer system will be used in loose/sandy to slightly rocky soils that are not suitable for a hand auger. This system was developed by Gravity Consulting and has been used for a number of riverbank soil sampling projects, including the RM11E Project Area.

   Lexan core tube liners will be placed inside a stainless steel core barrel with coring fingers at the bottom of the core barrel to retain the soil. The core barrel assembly will be advanced using an impact driver (modified jackhammer) or a fence post driver. Once the core barrel is advanced to the target depth, the driver will be removed, some deionized or distilled water will be added to the core barrel, and a cap will be placed on the top of the barrel to provide suction to retain the soil sample. The core barrel will be manually pulled from the ground. The Lexan tube will be removed from the core barrel, and the soil will be processed in accordance with the PDI work plan.

3. Post-hole digger. A post-hole digger will be used in rocky soils that cannot be effectively sampled using a hand auger or the impact corer system. Soil from each 1-ft depth interval will be placed directly into a decontaminated stainless steel mixing bowl and processed in accordance with the PDI work plan.

A combination of methods may be used for some of the borings. For example, the post-hole digger may be used to advance the boring in rocky soil from 0–1 ft below ground surface (bgs), and a hand auger may be used to advance the boring in cohesive soils with limited rocks from 1–4 ft bgs.

Eron Dodak		July 15, 2021
Field Operations Lead (or designee)	Signature	Date

Approval:

Eron Dodak		July 15, 2021
Project Manager	Signature	Date
Madi Novak		
EPA Remedial Project Manager	Signature	Date

Distribution:
LSS Project Coordinator
Integral Project Manager
Field Operations Lead
QA Officer

Project File
Other: